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55648	7590	10/27/2009	EXAMINER	
KEVIN L. RUSSELL			CEHIC, KENAN	
CHERNOFF, VILHAUER, MCCLUNG & STENZEL LLP				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/676,941	Applicant(s) VAN BEEK, PETRUS J. L.	
	Examiner KENAN CEHIC	Art Unit 2473	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-25, 27-30, 33-37, 39-42, 44 and 45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-25, 27-30, 33-37, 39-42, 44, 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 23-25, 27, 29, 33, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic et al (US 6,600,720) in view of Seo (US 6,959,448), Gross (US 2004/0062207), and Fang (US 2007/0064722)

For claim 23, Gvozdanovic discloses a method of transmitting data, said method comprising (see figs. 6-8): defining a first average rate to transmit a first plurality of packets of said data for presentation at a receiver (see col 5 lines 25-40 "SCR: Sustained cell rate..long

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term average rate”; figs. 6-8, SCR, all cells; col 8 lines 1-15 “sustained cell rate (average bandwidth) “; col 23 lines 10-15 “receiving end”; col 4 line 1-10 “at the transmitting entity...regenerates, at the receiving entity”)

(b) defining a second rate to transmit a second plurality of packets of said data comprising a subset of said first plurality of packets wherein said second plurality of packets is less than said first plurality of packets, wherein said second rate is greater than said first average rate (see col 5 lines 25-40 “PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum length”)’ transmitting said second plurality of packets (see col 5 lines 25-40 “PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum length”) from a transmitter to said receiver (col 23 lines 10-15 “receiving end”; col 4 line 1-10 “at the transmitting entity...regenerates, at the receiving entity”)at said second rate (see col 5 lines 25-40 “PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum length”); only those ones of said first plurality of packets that are included in said second plurality of packets (see col 5 lines 25-40 “PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8

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PCR=4SCR, MBS; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum length”).

For claim 24, Gvozdanovic discloses wherein said second plurality of packets are provided to said transmitter at the maximum rate (see col 7 lines 1-15 “maximum allocated voice bandwidth...”; col 5 lines 25-40 “PCR...maximum rate”).

For claim 25, Gvozdanovic discloses said second plurality of packets are provided as a burst of packets with at least two packets transmitted in a back-to-back fashion without other packets between them (see col 5 lines 25-40 “PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8 burst; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum length”).

For claim 27, Gvozdanovic discloses all packets of said second plurality of packets contain at least one of audio data (see col 5 line 15-40 “voice traffic”; col 7 lines 25 through col 8 line 15 “ voice channel”).

For claim 29, Gvozdanovic discloses wherein said transmitting is by an APPLICATION LAYER (see col 5 line 25-35 “voice application”).

For claim 33, Gvozdanovic discloses wherein steps (b) and (c) are performed a plurality of times over a time period (see figs. 6-8).

For claim 34, Gvozdanovic discloses wherein said first average rate is equal to the bit rate of the data source (see col 5 line 15-40 “Variable bit rate...”).

Gvozdanovic is silent about:

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For claim 23, average rate; from a transmitter to said receiver over a wireless interconnection; estimating the bandwidth of said wireless interconnection based on respective arrival times, at said receiver, video for presentation to said viewer at said receiver.

Seo from the same or similar field of endeavor discloses the following features:

For claim 23, Seo discloses from a transmitter to said receiver over a wireless interconnection (see fig. 1 ; 10, 20, 70, 80); a viewer at a receiver (see col 2 lines 1-40 “video file...provided from the server through a network...mobile terminal receives the video”); video for presentation to said viewer at said receiver (see col 2 lines 1-40 “video file...provided from the server through a network...mobile terminal receives the video”)

Fang from the same or similar field of endeavor discloses the following features:

For claim 23, Fang discloses a average rate (see section 0091-92 “PCR...mean rates...”)

Gross from the same or similar field of endeavor discloses the following features:

For claim 23, Gross discloses from a transmitter to said receiver over a interconnection (see fig. 4); estimating the bandwidth of said interconnection based on respective arrival times, at said receiver, of a first plurality of packets at said receiver (see section 0006 “measure the bandwidth of the network...difference in arrival times of the first and last packet....”; section 0019-21 “measure...network bandwidth...difference in arrival times...”)

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It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify / combine the features of Seo by using the above recited features, as taught by Gvozdanovic, Fang, and Gross in order to provide a reactive, realtime congestion control management method which allows more connections to be transported while maintaining quality(see Gvozdanovic cols 1-2) ; in order to efficiently transport synchronous data with limited jitter over a communication channel while making the remaining available bandwidth of the channel (see Fang section 0007); in order to provide a method to more accurately measure the bandwidth of a network which is not effected by short-term limitations as in the prior art and thus being able to more accurately adjust network / traffic parameters based on this measurement (see Grass section 0005-20)

2. Claims 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic et al (US 6,600,720), Seo (US 6,959,448), Gross (US 2004/0062207), and Fang (US 2007/0064722) as applied to claim 23, further in view of Makrucki (US 5,548,581)

For claim 28, Gvozdanovic, Seo, Gross and Fang discloses the claimed invention as described above.

Gvozdanovic, Seo, Gross and Fang are silent about:

For claim 28, said second plurality of packets is transmitted in a duration less than 1 second.

Makrucki from the same or similar field of endeavor discloses the following features:

For claim 28, Makrucki discloses said second plurality of packets is transmitted in a duration less than 1 second (see col 8 lines 20-40 "0.256 milliseconds...1 burst").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify / combine the features of Gvozdanovic, Seo, Gross and Fang by using the above recited features, as taught by Makrucki, in order to provide a communication system with an improved ability to make connection acceptance/rejection decisions (see Makrucki col 2)

3. Claims 30,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic et al (US 6,600,720), Seo (US 6,959,448), Gross (US 2004/0062207), and Fang (US 2007/0064722) as applied to claim 23, further in view Khirman (US 20080117915)

For claim 30,31, Gvozdanovic, Seo, Gross and Fang discloses the claimed invention as described above.

Gvozdanovic, Seo, Gross and Fang are silent about:

For claim 30 , wherein said transmitting is by a transport layer

For claim 31 and 42, wherein said transmitting is by a network layer

Khirman from the same or similar field of endeavor discloses a communication network with the following features:

For claim 30, Khirman discloses wherein said transmitting is by a transport layer (see section 0004 "transport layer...network layer"; see fig. 1).

For claim 31, Khirman discloses wherein said transmitting is by a network layer (see section 0004 "transport layer...network layer"; see fig. 1).

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It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Gvozdanovic, Seo, Gross and Fang by using the features, as taught by Khirman, in order to provide a module where multiple higher level functions can operate on any lower level functions

4. Claims 35-37, 40, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic et al (US 6,600,720) in view of Seo (US 6,959,448), and Gross (US 2004/0062207)

For claim 35, Gvozdanovic discloses A method of transmitting a contiguous sequence of data (see figs 6-8, burst), said method comprising:

(a) defining a transmission rate to transmit a plurality of packets of said contiguous sequence data wherein said transmission rate is greater than the average rate for transmitting said data to a receiver (see col 5 lines 25-40

“PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum length”)’ ;

(b)

transmitting said plurality of packets of said data (see col 5 lines 25-40

“PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8 PCR=4SCR, MBS; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum

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length”)’ over a

interconnection (col 23 lines 10-15 “receiving end”; col 4 line 1-10 “at the transmitting entity...regenerates, at the receiving entity”), wherein all packets contain at least one of audio data (see col 5 line 15-40 “voice traffic”; col 7 lines 25 through col 8 line 15 “voice channel); those packets of said contiguous sequence of data included in said plurality of packets (see figs 6-8, burst)

For claim 36, Gvozdanovic discloses wherein said second plurality of packets are provided to said transmitter at the maximum rate (see col 7 lines 1-15 “maximum allocated voice bandwidth...”; col 5 lines 25-40 “PCR...maximum rate”).

For claim 37, Gvozdanovic discloses said second plurality of packets are provided as a burst of packets with at least two packets transmitted in a back-to-back fashion without other packets between them (see col 5 lines 25-40 “PCR...SCR<PCR..MBS...maximum number..at PCR within the terms of the SCR..define bounds on burst durations”; figs. 6-8 burst; col 7 lines 25 through col 8 line 15 “ maximum length...transmit at PCR...PCR=4SCR...maximum length”).

For claim 40, Gvozdanovic discloses wherein said transmitting is by an APPLICATION LAYER (see col 5 line 25-35 “voice applicaton”).

For claim 44, Gvozdanovic discloses wherein said first average rate is equal to the bit rate of the data source (see col 5 line 15-40 “Variable bit rate...”).

For claim 45, Gvozdanovic performing said transmitting and a plurality of times over a time period (see figs 6-8).

Gvozdanovic is silent about:

For claim 36, wireless interconnection ; estimating the bandwidth of said wireless interconnection based on respective arrival times, at said receiver, video for presentation to said viewer at said receiver.

For claim 45, estimating.

Seo from the same or similar field of endeavor discloses the following features:

For claim 36, Seo discloses from a transmitter to said receiver over a wireless interconnection (see fig. 1 ; 10, 20, 70, 80);

Gross from the same or similar field of endeavor discloses the following features:

For claim 36, Gross discloses estimating the bandwidth of said interconnection based on respective arrival times, at said receiver, of a first plurality of packets at said receiver (see section 0006 “measure the bandwidth of the network...difference in arrival times of the first and last packet....”; section 0019-21 “measure...network bandwidth...difference in arrival times...”)

For claim 45, Gross discloses estimating (see section 0006 “measure the bandwidth of the network...difference in arrival times of the first and last packet....”; section 0019-21 “measure...network bandwidth...difference in arrival times...”; section 0021-22 “Each set of packets”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify / combine the features of Seo by using the above recited features, as taught by Gvozdanovic, and Gross in order to provide a reactive, realtime congestion control management method which allows more connections to be transported while maintaining quality(see Gvozdanovic cols 1-2) ; in order to provide a method to more

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accurately measure the bandwidth of a network which is not effected by short-term limitations as in the prior art and thus being able to more accurately adjust network / traffic parameters based on this measurement (see Grass section 0005-20)

5. Claims 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic et al (US 6,600,720), Seo (US 6,959,448), and Gross (US 2004/0062207) as applied to claim 35, further in view of Makrucki (US 5,548,581)

For claim 39, Gvozdanovic, Seo, Gross discloses the claimed invention as described above.

Gvozdanovic, Seo, Gross are silent about:

For claim 39, said second plurality of packets is transmitted in a duration less than 1 second.

Makrucki from the same or similar field of endeavor discloses the following features:

For claim 39, Makrucki discloses said second plurality of packets is transmitted in a duration less than 1 second (see col 8 lines 20-40 “0.256 milliseconds...1 burst”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify / combine the features of Gvozdanovic, Seo, Gross by using the above recited features, as taught by Makrucki, in order to provide a communication system with an improved ability to make connection acceptance/rejection decisions (see Makrucki col 2)

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6. Claims 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gvozdanovic et al (US 6,600,720), Seo (US 6,959,448), and Gross (US 2004/0062207) as applied to claim 35, further in view Khirman (US 20080117915)

For claim 41,42, Gvozdanovic, Seo, Gross discloses the claimed invention as described above.

Gvozdanovic, Seo, Gross are silent about:

For claim 41, wherein said transmitting is by a transport layer

For claim 42, wherein said transmitting is by a network layer

Khirman from the same or similar field of endeavor discloses a communication network with the following features:

For claim 41, Khirman discloses wherein said transmitting is by a transport layer (see section 0004 "transport layer...network layer"; see fig. 1).

For claim 42, Khirman discloses wherein said transmitting is by a network layer (see section 0004 "transport layer...network layer"; see fig. 1).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Gvozdanovic, Seo, Gross by using the features, as taught by Khirman, in order to provide a module where multiple higher level functions can operate on any lower level functions

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENAN CEHIC whose telephone number is (571)270-3120.

The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KWANG BIN YAO can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenan Cehic/

Examiner, Art Unit 2473

/KWANG B. YAO/

Supervisory Patent Examiner, Art Unit 2473